STOP ILLEGAL FISHING CASE STUDY SERIES **17**

May 2021 (revised August 2024)

Piloting the use of body worn cameras

To provide remote support for fisheries inspectors

Background

The Food and Agriculture Organization (FAO) Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing (PSMA) is a powerful tool and the first binding international agreement to specifically target IUU fishing. Port inspections of foreign vessels that engage in fishing or fishing related activities by state authorities are a critical component of this.

Stop Illegal Fishing (SIF) has been supporting African countries to develop monitoring, control, and surveillance (MCS) procedures and capacity to implement the PSMA. Mentoring multi-agency inspection teams has been a key element of this support. With the outbreak and spread of COVID-19 in 2020, in-person mentoring became difficult due to restrictions on working in enclosed spaces, shortages of personal protective equipment, and limitations on international travel. If the mentoring were to continue, an alternative way of providing support was urgently required.

In July 2020, SIF embarked on a pilot project to evaluate the viability of online mentoring using live-streaming cameras, similar to the body worn cameras (BWCs) used by security agencies, including police forces around the world. It was hoped this would enable expert mentoring to continue in real-time to frontline fisheries inspectors.

Body worn cameras were trialled in three countries: Ghana, Mozambique, and Madagascar. This resulted in some unexpected, yet favourable, consequences making it likely that their use will become a permanent feature of fisheries MCS long after the pandemic is over.

The camera selected was the Onethingcam C310 BWC. This camera has Wi-Fi and 3G/4G capabilities. It streams audio and video live and enables communication between the individual wearing it and the remote receiver of the livestream, thus enabling mentoring during inspections. It also has recording capabilities, enabling videos to be uploaded to a secure cloud server for subsequent viewing.

Initially SIF ordered two cameras for viability testing. These arrived in South Africa in July 2020 and were successfully tested. It was established that with Wi-Fi the camera battery lasted for eight hours. If Wi-Fi was unavailable the camera was switched to 3G/4G, reducing the battery time to around four hours, which was generally still enough time to undertake an inspection.

STOP ILLEGAL FISHING CASE STUDIES aim to:
Define best practice by analysing practical examples of different approaches in the fight against illegal, unreported and unregulated (IUU) fishing. They also demonstrate the magnitude of activities and partnerships underway to stop illegal fishing and provide the basis for policy advice.

Timeline of the project

July 2020	SIF tested the operational features of two cameras in South Africa.
August to October 2020	Camera tested in Ghana. Training in camera use provided to inspectors in Ghana. Six vessels inspected in Tema and Takoradi Ports, Ghana with the body worn cameras active.
November 2020	Six vessels inspected in Tema Port, Ghana with the body worn cameras active. Second Camera sent to Ghana. Three cameras sent to Mozambique.
December 2020	Training in camera use provided to Mozambique. Two vessels inspected in Maputo, Mozambique with the body worn cameras active.
January 2021	Planned inspections in other Mozambican ports delayed due to cyclone. Five cameras deployed in Madagascar. Three vessels inspected in Tema Fishing Port, Ghana with the body worn cameras active. Five cameras sent to South Africa.
February / March 2021	Testing of cameras in Cape Town and Durban, South Africa.
February 2021	Cameras tested in Antananarivo, Madagascar. Training in camera use provided to inspectors Madagascar.
May 2021	Use of camera in inspections due to start in Madagascar to coincide with purse seiner port calls.

One of the cameras was sent to the Ports Task Force Ghana (PTFG), an interagency group established to implement effective port state measures in Ghana. The system was tested by SIF in-country experts at Tema Port relaying the livestream to remotely located experts. Although the 3G/4G signal was weak and made the livestream lag, it was still feasible for real time mentoring support to be provided to the PTFG.

The first two vessels that were inspected using livestream body worn cameras were a fishing trawler and a reefer, in Tema in September 2020. This exercise showed that the concept worked in the field. The project was then expanded to Takoradi Port, Ghana.

Following the successful pilot in Ghana, three cameras were supplied to the Ministry of Sea, Inland Waters and Fisheries in Mozambique and five cameras were sent to the Ministry of Marine Resources and Fisheries, Madagascar. This provided a camera in each of the PSMA designated ports of Antsiranana, Mahajanga, Tulear, Tamatave and Taolagnaro in Madagascar and Maputo, Nacala and Beira in Mozambique.

Drivers

Mentoring and training of inspectors to improve inspection practice and standards was identified as a key requirement by countries implementing port State measures in Africa and is an integral requirement of the PSMA for developing States. COVID-19 threatened the continuation of this support in a hands-on manner, so innovative approaches needed to be developed.

Key features and outcomes

- **The pilot project to test the viability of using remote cameras** has provided good evidence that this is an excellent tool to provide support and build capacity. Therefore, this methodology is expected to become a standard tool for support to fisheries MCS long after the pandemic.
- **The body worn camera system also provides the opportunity for colleagues to watch and assist with inspections** in addition to enabling expert remote mentoring of inspections, from any location around the world. This innovative use of modern technology has not only enabled mentoring of inspections to continue during the COVID-19 pandemic, but to expand as experts can engage in more than one port at once.
- **Supervisors are able to oversee inspections**, even when based far away from the port, offering an opportunity to provide expertise or additional information as needed, to evaluate performance and to give feedback for improvements as necessary.
- **It was tested that the livestream could be sent to multiple receivers at the same time**, enabling simultaneous support to the inspectors that were physically undertaking the inspection.
- **Many advantages of using body worn cameras have been identified**, including that the quality of inspections improve due to remote oversight, opportunities for corruption, violence and confrontations are reduced, and recordings provide a valuable training resource.

Challenges

- **WiFi and 3G/4G signals are poor in many ports**, however, even if live streaming is not possible, the recording of the inspection can be reviewed later for training and assessment purposes and may be useful as evidence.
- **Video recordings take time to review** and require strong commitment from senior officials.
- **Ensuring experienced oversight, mentoring or training** to support inspections is available to provide the inspectors on the ground with confidence to do their work.
- **The devices by themselves do not create more accountability and transparency**, it is how they are used that matters and they need to be integrated into a robust system of port state measures with a professional culture and an up-to-date legal framework.

Lessons learned

- **Reduced time and expense** due to not having to travel to be physically present at inspections.
- **Potential benefits of body worn cameras** go beyond the initial scope of training and mentoring by out of country experts, and can be used by national and regional officials, experts and trainers.
- **Oversight offered by supported inspections** reduces opportunities for corruption and increases safety of fisheries inspectors.
- **Recordings can provide a detailed record of an event** that may be valuable in providing evidence for enforcement or legal action.
- **Uses of body worn cameras are far wider than initially considered**, include providing interpretation, translation of documents or other expert advice.

Policy implications

- Body worn cameras will become part of the standard operating procedures for fisheries inspections in some countries.
- Developing programmes to sit within regional MCS centres, linked to national MCS officials, would bring most benefit as they have access to region wide intelligence and would develop regional capacity.
- Legislative changes may be required to enable videos taken during inspections to be used as evidence in court cases.

Players involved

- Ministry of Fisheries and Aquaculture Development, Ghana
- Ministry of Sea, Inland Waters and Fisheries, Mozambique
- Ministry of Marine Resources and Fisheries, Madagascar
- Ministry of Forestry, Fisheries and the Environment, South Africa
- Ports Task Force Ghana
- Stop Illegal Fishing
- GIZ and the Waterloo Foundation

Body worn cameras now being used in seven African countries with support from:

Next steps

- **Train personnel in the use of cameras.** Introduce the use of body worn cameras more widely for use in ports and in other situations – e.g., for observers and during surveillance fights.
- **Ongoing use of cameras for inspections.** Project experts will join at least one inspection via remote cameras per week in each partner country, if they are taking place. This will enable:

  – Mentoring during inspection briefing meetings

  – Recording of real time inspections.

  – Provision of real time mentoring during inspections

  – Support for post-inspection activities if evidence of IUU fishing activity is found.
- **Expand interagency involvement.** A potential use of the cameras is to use them to enhance wider interagency involvement in inspections. This can be tested and demonstrated during interagency meetings, and then it may be agreed to share live or recorded access with other agencies to improve not only port state measures for fisheries compliance but also port state controls for detection of non-compliance in maritime, labour or other sectors.
- **Awareness and best practice.** Sharing of the pilot project experiences will include creating awareness material and practical guidance through webinars, online tutorials or by posting materials on the SIF website.

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